# 

# OVERVIEW OF TRAINING PROGRAM

# 1.1 PURPOSE AND SCOPE

- 1.1.1 The purpose of this document is to provide a uniform training program for Forensic Laboratory Specialists (FLSs) employed in the Forensic Biology Section of the Commonwealth of Virginia Department of Forensic Science. It is designed to teach an individual with a scientific background to properly handle forensic evidence, with special emphasis on evidence of a biological nature, to independently collect DNA samples from evidence submitted for examination in the section, to perform independent sizing of short tandem repeat (STR) gel images, to serve as the primary operator of the BioMek® 2000 Automation Workstation, to load and run gels, and to conduct other routine duties that assist the casework examiners and DNA Data Bank analysts.
- 1.1.2 This training program is designed to be completed in a modular format, thereby allowing the individual to be qualified in a specific area, while still being trained to complete additional tasks.

# 1.2 LOCATION AND COORDINATION OF TRAINING

- 1.2.1 All of the training will occur in the laboratory to which the individual is assigned.
- 1.2.2 The training modules in Sections 2, 3, 5, and 6 will be conducted by a training coordinator. If the training coordinator delegates a portion of the training module to another qualified individual, the training coordinator remains responsible for that aspect of the training. The training in Section 4 will be conducted by the BioMek® 2000 Automation Workstation Project Coordinator.

# 1.3 TRAINING PERIOD

- 1.3.1 It is estimated that the first part of the evidence handling training module will take approximately two months to complete. Refer to Section 2, Phase I. Satisfactory completion of this portion will be followed by a period of time for the FLS to gain experience and confidence performing those tasks independently. The FLS will also be trained to collect DNA samples from evidence submitted for examination in the section. Refer to Section 2, Phase II. It is estimated that this portion of the evidence handling training module can be completed within two months, depending on such factors as the availability of the specified evidential material on which the FLS must be trained. Subsequently the FLS will be trained to prepare samples for DNA extraction. Refer to Section 2, Phase III. It is estimated that this final portion of the evidence handling training module can be completed in two to three months working with a qualified examiner, depending on such factors as the availability of evidence materials on which the FLS must be trained.
- 1.3.2 The independent sizing module of the training program (Section 3) is anticipated to take six weeks.
- 1.3.3 Learning to operate the BioMek<sup>®</sup> 2000 Automation Workstation (Section 4) is anticipated to take approximately two to three months to complete all training modules.

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1.3.4 Learning to load and run yield, product and typing gels (Section 5) is anticipated to take two to four weeks depending on the availability of training samples.

- 1.3.5 The remaining module of the training program covering additional support duties (Section 6) may be taught over a period of time while the FLS is conducting other duties or may be concentrated into a period of approximately one month.
- 1.3.6 Some individuals may require more or less time for training than others, depending on such factors as experience and education. The length of the training period is a matter which will be left to the discretion of the Forensic Biology Section Chief in consultation with the with the Section Supervisor and training coordinator or BioMek® 2000 Automation Workstation Project Coordination, as applicable, and the FLS' supervisor.

# 1.4 INSTRUCTIONS FOR THE TRAINING COORDINATOR

- 1.4.1 The intent of the training program is to ensure that the FLS is provided with certain basic principles and fundamentals necessary for clearly understanding how to independently handle forensic evidence, for developing sound evidence handling methods and techniques, including but not limited to the collection of DNA samples from evidence and preparation for DNA extraction, for accurately and independently sizing STR gel images, for independently operating the BioMek® 2000 Automation Workstation, for loading and running yield, product and typing gels, and for providing support in other areas to the casework examiners and the DNA Data Bank analysts.
- 1.4.2 All of the tasks listed in each training module must be incorporated into the training. Most of these tasks will be performed more than one time and many will be performed a number of times during the training. Some of the tasks will suggest an order of events and that ranking should be followed.
- 1.4.3 Question and answer sessions will be held with the FLS throughout each of the training modules to ensure that he/she is grasping the significance and importance of each aspect of the training module. Other examiners should be encouraged to participate in one-on-one sessions with the FLS.
- 1.4.4 The checklist and, as appropriate, the training notebook, will be reviewed with the FLS on a regular periodic basis throughout each training module. This will enhance the training coordinator's ability to monitor training progress and may also give the trainee a greater sense of accomplishment.
- 1.4.5 It is recommended that the FLS accompany an examiner to local court, if possible, to observe testimony regarding chain of custody and evidence preservation. Additionally, observation of testimony regarding forensic procedures and QA/QC may enhance the FLS' understanding of the implications of his/her support work. Subsequent discussion between the examiner and the FLS regarding the case and testimony will also be helpful.
- 1.4.6 The completion of each task within each training module will be documented by the training coordinator or designee or the BioMek<sup>®</sup> 2000 Automation Workstation Project Coordinator, as applicable, on the appropriate checklist as the task is completed. The checklist for each training module is located at the end of each training module in this manual.

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- 1.4.7 The training on each module should culminate with the FLS attaining each of the goals set forth in that training module.
  - 1.4.7.1 Upon satisfactory completion of the specified tasks in Section 2 Phase I, Section 2 Phase II, Section 2 Phase II, section 2 Phase III, and Section 3, the training coordinator will conduct a review of the appropriate checklist and the portion of the training notebook for the specified module and will recommend the FLS for qualification in that particular area by signing and dating the appropriate spaces beside "Recommended for Qualification" at the bottom of the checklist.
    - 1.4.7.1.1 The training coordinator will discuss the FLS' overall performance with him/her prior to forwarding the training materials and recommendation for qualification to the supervisor.
  - 1.4.7.2 Upon satisfactory completion of each task specified in Section 4, as documented on the checklist for that section, the BioMek® 2000 Automation Workstation Project Coordinator will qualify the FLS to independently operate the workstation for the specific qualified task.
  - 1.4.7.3 Upon satisfactory completion of individual tasks specified in Section 5, as documented on the checklist for that section, the training coordinator will qualify the FLS to perform the task(s).
  - 1.4.7.4 Upon satisfactory completion of individual tasks specified in Section 6, as documented on the checklist for that section, the training coordinator will qualify the FLS to perform the task(s).

# 1.5 INSTRUCTIONS FOR THE FLS

- 1.5.1 All training will be performed under the DIRECT SUPERVISION OF A QUALIFIED EXAMINER.
- 1.5.2 A notebook must be kept to document all aspects of training for Receiving and Handling Physical Evidence (Section 2, Phases I, II, and III of this manual) and Independent Sizing of STR Gel Images (Section 3 of this manual).
  - 1.5.2.1 The notebook for Receiving and Handling Physical Evidence should include, at a minimum, the checklist for the appropriate training module (Phase I, Phase II or Phase III) accurately documenting the completion of each task and documenting general information on the types of cases and evidence handled with an accompanying description of what was done with the case/evidence.
    - 1.5.2.1.1 Copies of Request for Laboratory Examination (RFLE) forms and duplicates of case file documentation CANNOT be retained in the notebook.
    - 1.5.2.1.2 Names of victims, suspects, or other individuals associated with a case on any documentation maintained in the notebook MUST BE REDACTED.

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1.5.2.2 The notebook for the Independent Sizing of STR Gel Images training module should include, at a minimum, the checklist accurately documenting the completion of each task and copies of all gel images sized with the associated Lookup Tables, STaRCall Sheets, and Landscape Sheets.

- 1.5.2.2.1 Names of victims, suspects, or other individuals associated with a case on any documentation maintained in the notebook MUST BE REDACTED.
- 1.5.2.3 The notebook for the Loading and Running Yield, Product and Typing Gels training module should include, at minimum, the checklist accurately documenting the completion of each task and copies of all photographs, typing gel images and the analytical worksheets associated with these steps.
  - 1.5.2.3.1 Names of victims, suspects, or other individuals associated with a case on any documentation maintained in the notebook MUST BE REDACTED.
- 1.5.2.4 The notebook will be periodically checked by the training coordinator.
- 1.5.3 Upon qualification by the supervisor, training coordinator, or Biomek® 2000 Automation Workstation Project Coordinator, as specified, the tasks associated with that module may be performed independently.

# 1.6 COMPLETION OF TRAINING

The original checklist signed and dated by the training coordinator, BioMek Project Coordinator and/or the supervisor indicating that the FLS has completed his/her training for the specified task, will be forwarded by the supervisor to the Laboratory Director or their designee in accordance with the Department Quality Manual.

- 1.6.1 Upon receiving the training coordinator's recommendation for qualification for Section 2 Phase I, Section 2 Phase II, Section 2 Phase III, and Section 3, the supervisor will review the appropriate completed checklist and the portion of the training notebook for the specified module to ensure that all tasks associated with the training have been satisfactorily completed in accordance with the requirements set forth in this manual. When satisfied, the supervisor will document the FLS' qualification for the specified module or task, as appropriate, by signing and dating the designated place at the bottom of the checklist.
  - 1.6.1.1 Upon satisfactory completion of the training module, the supervisor will forward a copy of the signed checklist to the Section Chief. The Section Chief will forward a copy of the signed checklist for Section 3 to the Department QA Coordinator to serve as notification that the FLS needs to be added to the proficiency testing schedule for second sizing.
- 1.6.2 Upon satisfactory completion of each task specified in Section 4, as documented on the checklist for that section, the BioMek® 2000 Automation Workstation Project Coordinator in conjunction with the supervisor will qualify the FLS to perform the specific task by signing and dating the designated place at the bottom of the checklist.

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		1.6.3
1.6.4	Upon satisfactory completion of individual tasks specified in Section 6, as documented on the checklist for that section, the training coordinator will qualify the FLS to perform the task(s) by signing and dating the designated place on the checklist.	
1.6.5	If the FLS cannot meet the criteria expected of him/her d steps will be taken to effect appropriate action.	uring the period allowed for training
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